

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellant :	Vincent P. Walker	Art Unit :	3724
Serial No. :	10/799,037	Examiner :	Edward F. Landrum
Filed :	March 11, 2004	Conf. No. :	6724
Title :	SHAVING CARTRIDGES AND RAZORS		

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Commissioner for Patents

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BRIEF ON APPEAL

A Notice of Appeal from the rejection of the pending application was filed and received at the U.S. Patent and Trademark Office on July 16, 2007.

(1) Real Party in Interest

The real party in interest is The Gillette Company, Prudential Tower Building, Boston, Massachusetts. The Gillette Company recently was acquired by The Procter & Gamble Company.

(2) Related Appeals and Interferences

There are no related appeals or interferences.

(3) Status of Claims

Claims 1-14, 18-24, 26, and 27 are pending. Claims 15-17 and 25 have been canceled. Claims 1-14, 20-24, 26, and 27 stand rejected and are appealed herein. Claims 18 and 19 are objected to for being dependent upon a rejected base claim.

Claims 1-6, 24, and 26 stand rejected under 35 U.S.C. §102(b) as being anticipated by Apprille et al., U.S. Patent No. 5,813,293 ("Apprille"). Claims 1, 24, and 26 stand rejected under 35 U.S.C. §102(b) as being anticipated by Coffin, U.S. Patent No. 6,442,850 ("Coffin"). Claims 7-10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Coffin. Claims 9 and 10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Apprille. Claims 12-14, 22, 23, and 27 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Apprille in view of Rozenkranc, U.S. Patent No. 6,276,061 ("Rozenkranc"). Claims 20 and 21 stand rejected under

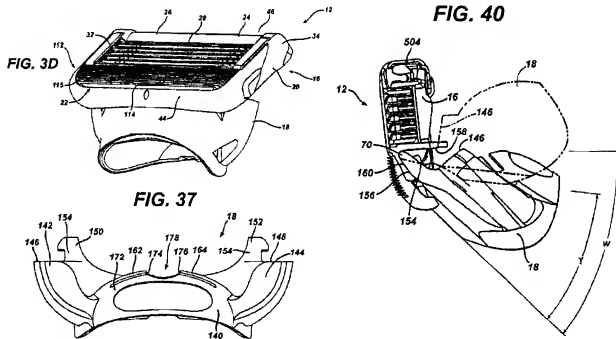
35 U.S.C. §103(a) as being unpatentable over "the modified device of Apprille, as stated in section 9."¹

(4) Status of Amendments

All amendments have been entered.

(5) Summary of Claimed Subject Matter

The claims relate to shaving cartridges (see e.g., specification, page 1, lines 2-3). Claims 1, 14, and 24 are the only pending independent claims. Examples of the claim features are shown in figures 3D, 37, and 40, reproduced below.



As set forth in the claim 1, the shaving cartridge (e.g., 12) includes a blade unit (see e.g., specification, page 6, line 19; Fig. 3D, ref. 16) including a housing (see e.g., specification, page 6, line 20; Fig. 3D, ref. 20) having a front edge (see e.g., specification, page 7, line 10; Fig. 3D, ref. 44) and a rear edge (see e.g., specification, page 7, line 10; Fig. 3D, ref. 46). The shaving

¹ "Section 9" appears to be a typographical error. It is believed that this is intended to refer to section 7, in which the Examiner rejected the claims as unpatentable over Apprille combined with Rozenkranc.

cartridge also includes one or more shaving blades between the front edge and the rear edge (see e.g., specification, page 1, lines 25-28; Fig. 3D).

The shaving cartridge further includes a connecting member (see e.g., specification, page 6, line 19; Figs. 3D, 37, and 40, ref. 18) pivotally connected to the housing (see e.g., specification, page 6, lines 18-19; Fig. 40). The housing (e.g., 20) and connecting member (e.g., 18) defining opposing stop surfaces (see e.g., Fig. 40, refs. 154, 156, 158, and 160) for limiting rotation of the blade unit relative to the connecting member (see e.g., specification, page 16, lines 23-25). A normal pivot angle is defined by the opposed stop surfaces (see e.g., specification, page 16, lines 23-25; Fig. 40, ref. γ).

The connecting member also has a load-bearing surface (see e.g., Figs 37 and 40, refs. 146 and 148) arranged and configured to contact the housing only when the housing is pivoted beyond a limit angle that is greater than the normal pivot angle (see e.g., specification, page 16, line 28 – page 17, line 4; Fig. 40, ref. ω).

Because the load-bearing surface is configured to contact the housing only when the housing is pivoted beyond a limit angle that is greater than the normal pivot angle (e.g., ref. γ) and the normal pivot angle (e.g., ref. γ) is defined by the opposing stop surfaces (see e.g., refs. 154, 156, 158, and 160) of the housing and the connecting member, the load-bearing surface (see e.g., refs. 146 and 148) of the connecting member must be a different structure than any of the opposing stop surfaces (see e.g., refs. 154, 156, 158, and 160) that define the normal pivot angle (e.g., ref. γ). Furthermore, the load-bearing surface (see e.g., refs. 146 and 148) must not contact the housing unless the housing is pivoted with respect to the connecting member at an angle greater than a limit angle of the normal pivot angle (e.g., ref. γ).

The excerpt reproduced below of pages 16 and 17 of the specification includes a description of Fig. 37 that helps indicate how the claimed structure can be beneficial.

Referring to Fig. 37, the end surfaces 146 and 148 serve as load-bearing structures in the event of over rotation of the blade unit 16 relative to the connecting member 18. Such over rotation may occur, e.g., if the razor is dropped by the user. As shown in Fig. 40, the housing 20 can contact the end surfaces 146 and 148 in the event the blade unit is rotated an angle ω which is greater than γ (e.g., greater than 41 degrees, between about 42 degrees and 45 degrees, such as about 43 degrees). By providing these load-bearing structures, load can be transmitted

to end surfaces 146, 148 and arms 142, 144, thus relieving stress on the fingers 150, 152 (e.g., to prevent finger breakage).

As set forth by claim 24, a shaving razor includes a handle and a shaving cartridge (see e.g., specification, page 2, lines 12-14), the shaving cartridge including a connecting member for connecting the cartridge to the handle (see e.g., specification, page 6, line 19; Figs. 3D, 37, and 40, ref. 18). The shaving cartridge includes a blade unit having a housing (see e.g., specification, page 6, lines 19 and 20; Fig. 3D, refs. 16 and 20). The housing has a front edge and a rear edge (see e.g., specification, page 7, line 10; Fig. 3D, refs. 44 and 46). The shaving cartridge also includes one or more shaving blades between the front edge and the rear edge (see e.g., specification, page 1, lines 25-28; Fig. 3D). The housing (e.g., 20) and connecting member (e.g., 18) define opposing stop surfaces (see e.g., Fig. 40, refs. 154, 156, 158, and 160) for limiting rotation of the blade unit relative to the connecting member (see e.g., specification, page 16, lines 23-25). A normal pivot angle is defined by the opposed stop surfaces (see e.g., specification, page 16, lines 23-25; Fig. 40, ref. γ). The connecting member is pivotally connected to the cartridge housing (see e.g., specification, page 6, lines 18-19; Fig. 40). The connecting member also has a load-bearing surface (see e.g., Figs 37 and 40, refs. 146 and 148) arranged and configured to contact the housing only when the housing is pivoted beyond a limit angle that is greater than the normal pivot angle (see e.g., specification, page 16, line 28 – page 17, line 4; Fig. 40, ref. ω).

As set forth in claim 14, a shaving cartridge includes a blade unit having a cartridge housing (see e.g., specification, page 6, lines 19-20), one or more blades positioned on the cartridge housing defining a first cutting region (see e.g., specification, page 6, line 21), and a trimming blade connected to the housing and defining a second cutting region spaced from and facing in a direction away from the first cutting region (see e.g., specification, page 6, lines 21 and 22). The shaving cartridge also includes a connecting member pivotally connected to the cartridge housing (see e.g., specification, page 6, lines 18-19; Fig. 40), the cartridge housing and connecting member defining opposing stop surfaces for limiting rotation of the blade unit relative to the connecting member during a trimming operation using the trimming blade (see e.g., specification, page 16, lines 23-25). The connecting member has a pair of arms, each arm

having an associated terminal portion constructed to be received by a recess in the housing (see e.g., Fig. 40). A normal pivot angle is defined by the opposed stop surfaces defined by the terminal portions and a surface of the housing (see e.g., specification, page 16, lines 23-25; Fig. 40, ref. γ). Each terminal portion extends from an end of the corresponding arm (see e.g., Figs. 37 and 40). The end forming a load-bearing surface (see e.g., refs. 146 and 148). The load-bearing surface (see e.g., refs. 146 and 148) is arranged and configured to contact the housing only when the housing is pivoted beyond a limit angle that is greater than the normal pivot angle (see e.g., specification, page 16, line 28 – page 17, line 4; Fig. 40, ref. ω).

(6) Grounds of Rejection to be Reviewed on Appeal

Claims 1-6, 24, and 26 stand rejected under 35 U.S.C. §102(b) as being anticipated by Apprille et al., U.S. Patent No. 5,813,293 (“Apprille”). Claims 1, 24, and 26 stand rejected under 35 U.S.C. §102(b) as being anticipated by Coffin, U.S. Patent No. 6,442,850 (“Coffin”). Claims 7-10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Coffin. Claims 9 and 10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Apprille. Claims 12-14, 22, 23, and 27 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Apprille in view of Rozenkranc, U.S. Patent No. 6,276,061 (“Rozenkranc”). Claims 20 and 21 stand rejected under 35 U.S.C. §103(a) as being unpatentable over “the modified device of Apprille, as stated in section 9.” Appellant requests reversal of all of the above noted rejections under 35 U.S.C. § 102(b) and under 35 U.S.C. § 103(a).

(7) Argument

Appellant will explain why each of the currently pending rejections should be reversed.

A. Claims 1-6, 24, And 26 Are Not Anticipated By Apprille Under 35 U.S.C. § 102(b)

Claims 1-6, 24 and 26 stand rejected under 35 U.S.C. 102(b) as being anticipated by Apprille. This rejection is improper because Apprille does not disclose a “connecting member having a load-bearing surface arranged and configured to contact the housing only when the housing is pivoted beyond a limit angle that is greater than the normal pivot angle.” Claims 1-6, 24, and 26 clearly define the normal pivot angle as the range of pivot motion allowed by the

opposing stop surfaces of the housing and the connecting member (e.g., the angle γ shown in Fig. 40 of the instant application). These opposing stop surfaces are "for limiting rotation of the blade unit relative to the connecting member."

Aprille describes Figures 16-18, reproduced below, as follows:

Referring to FIGS. 16-18, it is seen that each pivotal support end 72 has a lower curved surface 138 that slides on upper curved surface 140 of housing 16, providing a pivot axis at the center of a circle that includes surface 140. The pivot axis thus is in front of the blades in the region of guard 20. FIG. 16 shows housing 16 in an unbiased position in which pivotal support ends 72 support the front surface of guide wall 162. FIG. 17 shows the forwardly biased position for housing 16, in which case the forward surface of pivot support ends 72 are pushed up against a forward wall portion of housing 16. This is the at rest position for housing 16 prior to shaving. The forwardly-biased at rest position is achieved by contouring camming surface 136 so that plunger 44 having cam follower surface 102 has an at rest position near the front of housing 16, as shown in FIG. 18.

(Aprille, col. 8, lines 1-16).

FIG. 16

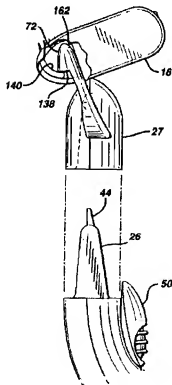


FIG. 17

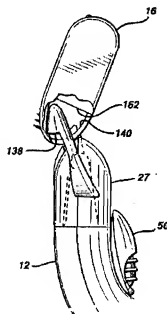
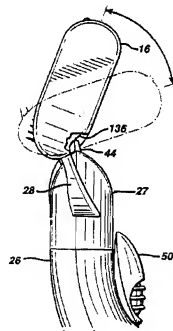


FIG. 18



The pivotal support end 72 of the connecting member 27 of Apprille has forward and rear surfaces that act as opposing stop surfaces to the opposing stop surfaces of guide wall 162 of the housing 16. These opposing stop surfaces define the normal pivot angle of the Apprille device, which is shown in Fig. 18 by the double-arrow-headed arc. Fig. 16 shows the forward surface of pivotal support end 72 abutting the upper part of guide wall 162 at one limit angle of the normal pivot angle. Fig. 17 shows the rear surface of pivotal support end 72 abutting the lower surface of the guide wall 162 at the other limit angle of the normal pivot angle.

Furthermore, Apprille does not disclose any other portion of the "connecting member having a load-bearing surface arranged and configured to contact the housing only when the housing is pivoted beyond a limit angle that is greater than the normal pivot angle." As shown in Figs. 16 and 18, the only other portion of the connecting member 27 that can make contact with the housing 16 makes contact with the housing 16 when the housing is at one of the limit angles of the normal pivot angle, and thus not only when the housing is pivoted beyond a limit angle. Furthermore, neither that portion nor other portions of the connecting member of Apprille are "load-bearing surface[s] arranged and configured to contact the housing."

Accordingly, the Apprille shaving cartridge cannot be reasonably construed to have a "connecting member having a load-bearing surface arranged and configured to contact the housing only when the housing is pivoted beyond a limit angle that is greater than the normal pivot angle."

The Examiner, however, misconstrues the claims using an unreasonable interpretation of the term "normal pivot angle." The Examiner's argument that "Applicant has not claimed any limits for the normal pivot angle or the limit angle in claims 1 . . . and 24" is incorrect. (See Office Action mailed May 16, 2007, page 6, lines 20-21). Independent claims 1 and 24 clearly recite that "a normal pivot angle is defined by the opposed stop surfaces." A reading of the application as a whole makes it clear that the normal pivot angle is not merely a relative positioning of the housing to the connecting member, but instead is an angle of pivotal movement normally allowed by the opposed stop surfaces of the housing and the connecting member.

The Examiner argues that the normal pivot angle for the Apprille device "is zero degrees, as the shaver normally rests in an unbiased position" (Office Action mailed May 16, 2007, page

2, lines 13-18). However, as is clear from Appellant's specification, the normal pivot angle recited in Appellant's claims is not the normal rest position of the shaving cartridge, but instead is the angle defined by "the opposed stop surfaces." The opposed stop surfaces of the Apprille device do not prevent pivotal movement between the housing and the connecting member (which would be necessary to have the normal pivot angle be zero degrees as alleged), but instead allow for the normal pivot angle shown with a double-arrow-headed arc in Fig. 18. The Examiner also alleges that "the normal pivot angle is defined by opposed stop surfaces, which consist of surface (162) of the housing and the rear portion of the arm (72)."² Appellants respectfully disagree. The rear surface of arm 72 and the lower surface of guide wall 162 together can only define one limit of the normal pivot angle of the Apprille device. A normal pivot *angle* cannot be defined by a single pair of opposed stop surfaces. The other limit of the normal pivot angle of the Apprille device is defined by the forward surface of arm 72 and the upper surface 162 of the Apprille device.

The Examiner's unreasonable construction of the claim term "normal pivot angle" allows the Examiner to also unreasonably construe the forward surface of arm 72 to be Appellant's claimed load-bearing surface that only contacts the housing when the housing is pivoted beyond the normal pivot angle (Office Action mailed May 16, 2007, page 2, lines 13-18), which in reality is the other limit angle of the normal pivot angle. Because the Examiner's claim interpretation is unreasonable and the Apprille device does not anticipate any reasonable interpretation of the claims, the rejection of claims 1-6, 24, and 26 under 102(b) over Apprille must be withdrawn.

B. Claims 1, 24, And 26 Are Not Anticipated By Coffin Under 35 U.S.C. § 102(b)

Claims 1, 24 and 26 stand rejected under 35 U.S.C. 102(b) as being anticipated by Coffin. The Examiner has not clearly set forth how the shaving razor of Coffin, which has a drastically different structure than the instantly disclosed shaving razor, meets each and every limitation of claims 1, 24, and 26. As Appellant will explain in detail below, the Coffin reference does not

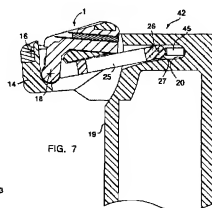
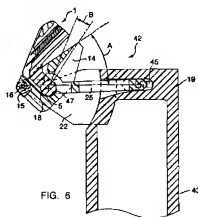
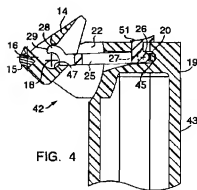
² Final Office Action mailed 5/16/07, page 2.

disclose each and every feature of Appellant's independent claims, and therefore cannot anticipate the claims.

As will be discussed in detail below, there are a number of flaws in the Examiner's reasoning regarding the teachings of Coffin and how those teachings are relevant to Appellant's claims. For example, the Examiner interprets the blade cartridge 1 to be the housing and the slider 25 to be the connecting member, and then interprets angle A (Coffin, Fig. 6, reproduced below) to be the normal pivot angle. However, in Appellant's claims the normal pivot angle is defined by opposed stop surfaces on the housing and connecting member, while angle A of the Coffin device is clearly not defined by opposing surfaces of the housing and connecting member, but rather between opposing surfaces of a sub-seat 14 and the slider 25. Moreover, the Coffin device does not include "a load-bearing surface arranged and configured to contact the housing only when the housing is pivoted beyond a limit angle that is greater than the normal pivot angle" as required by Appellant's claims.

Before discussing these points in detail, Appellant will first summarize the teachings of Coffin.

Fundamentally, Coffin is concerned with allowing a blade cartridge 1 to be disposable while allowing for a permanent guard element 15, which is part of a sub-seat 14 of a reusable assembly. The assembled shaving device of Coffin is shown in Figs. 6 and 7, reproduced below. The reusable assembly without blade cartridge 1 is shown in Fig. 4, also reproduced below. The reusable assembly includes sub-seat 14 for holding the replaceable blade cartridge 1, slider 25, and a "housing 19 [that] transitions into a lower portion 43 which may be shaped to form a



handle or which may be fixed to a separate handle" (Coffin, col. 4, lines 7-11). Coffin discloses that "sub-seat 14 is designed to have about 40° of pivotal freedom of movement about axis 16 relative to the housing 19, as represented by the angle A of FIG. 6" and that "blade cartridge 1 is preferably designed to have approximately 10° of pivotal freedom of movement about axis 18 relative to the sub-seat 14 as represented by the angle B of FIG. 6." (Coffin, col. 5, lines 53-60). The blade cartridge 1 pivots relative to the guard element 15 and sub-seat 14 by pivoting about axis 18 against a spring bias. Coffin discloses that in its normal operation, the blade cartridge 1 only begins to rotate about the axis 18 after the sub-seat 14 has rotated about the axis 16 to about half its range of travel (See Coffin, col. 6, lines 4-8, Figs. 6 and 7).

In the Office Action mailed May 16, 2007, the Examiner asserts that "the normal pivot angle is defined by the angle represented by the degrees in which the sub-seat (14) and the housing (1) rotate together, and the limit angle is defined by the degrees after the housing (1) rotates relative to the sub-seat (14) after the sub-seat (14) has completed rotating with the housing (1) and maintained angle (B) between the two." (Office Action, page 3, lines 6-10). This is both a misinterpretation of Coffin and an unreasonable interpretation of Appellant's claims. The normal pivot angle cannot be "defined by the angle represented by the degrees in which the sub-seat (14) and the housing (1) rotate together" (Angle A shown in Fig. 6) because Appellant's claims specify that the "normal pivot angle is defined by the opposed stop surfaces" of the housing and the connecting member. As discussed above, angle A, however, is not defined by opposing stop surfaces of the blade cartridge 1 and the slider 25, but instead by the sub-seat 14 and the slider 25. Accordingly, the Examiner's interpretation of Coffin's angle A is not consistent with the claimed "normal pivot angle" as defined by the claims. Accordingly, the rejection is in error and must be withdrawn.

The Examiner also alleges that the slider 25 "has a load bearing surface (top of member 25) which is arranged to contact the housing (1) only when the housing is pivoted beyond a limit angle that is greater than a normal pivot angle." This must also be incorrect, because, as shown in Fig. 7, the blade cartridge 1 contacts the top of slider 25 when in the position shown in Fig. 7. Fig. 7 of Coffin shows the Coffin device "with the sub-seat and the blade cartridge being shown in their clockwise limited positions" (Coffin, col. 3, lines 24-26). The claims require that the housing only contacts the "load-bearing surface" when the housing is "pivoted beyond a limit

angle that is greater than the normal pivot angle.” At most, in Fig. 7 the housing 1 could be said to be *at* the “limit angle” (limit of angle B) -- not pivoted beyond this angle. Accordingly, it is clear that when the housing contacts the slider the positioning of the Coffin razor cannot reasonably be said to be “beyond a limit angle that is greater than the normal pivot angle.” Furthermore, the Examiner has not established that the slider 25 includes any structure which could reasonably be construed to be a “load-bearing surface.”

The Examiner goes on to justify the misconstruction of the claims by stating that the “Applicant has not sufficiently defined the normal and limit angles nor the structure that incorporates these angles.” (See Office Action mailed May 16, 2007, page 7, lines 2-4). The Examiner’s contention is incorrect for the same reasons discussed above in reference to the rejection over Apprille. The claims themselves define the term “normal pivot angle” in a way that contradicts the Examiner’s interpretation and the Examiner has not even attempted to reconcile his interpretation with the requirements of the claims. Because the Examiner has not presented a rejection that uses a proper claim interpretation to show that each and every element of Appellant’s independent claims is found in the Coffin reference, the Examiner has not met the “identity” requirement for a showing of anticipation. For at least this reason, the rejection of claims 1, 24, and 26 over Coffin as set forth in the Office Action mailed May 16, 2007 is improper and must be withdrawn.

C. Claims 7-10 Are Not Unpatentable Over Coffin Under 35 U.S.C. § 103(b)

Claims 7-10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Coffin. This rejection is also improper for the same reasons as explained in regard to the rejection of claims 1, 24, and 26 over Coffin under 35 U.S.C. § 102(b). As discussed above, Coffin does not disclose a “connecting member having a load-bearing surface arranged and configured to contact the housing only when the housing is pivoted beyond a limit angle that is greater than the normal pivot angle,” where the normal pivot angle is defined by opposing stop surfaces of the housing and the connecting member. As discussed above, Angle A as disclosed by Coffin is not defined by opposing surfaces of the blade cartridge and the slider, but by opposing surfaces of the sub-seat 14 and the slider 25. Coffin also does not suggest, or otherwise render obvious, a

connecting member with such a load-bearing surface. Accordingly, the rejection of claims 7-10 under 35 U.S.C. § 103(a) over Coffin is improper and must be withdrawn.

D. Claims 9 and 10 Are Not Unpatentable Over Aprille Under 35 U.S.C. § 103(b)

Claims 9 and 10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Aprille. This rejection is also improper for at least the same reasons as explained in regard to the rejection of claims 1-6, 24, and 26 over Aprille under 35 U.S.C. § 102(b). As discussed above, Aprille does not disclose a “connecting member having a load-bearing surface arranged and configured to contact the housing only when the housing is pivoted beyond a limit angle that is greater than the normal pivot angle.” Aprille also does not suggest, or otherwise render obvious, a connecting member with such a load-bearing surface. Accordingly, the rejection of claims 9 and 10 under 35 U.S.C. § 103(a) over Aprille is improper and must be withdrawn.

E. Claims 12-14, 22, 23, and 27 Are Not Unpatentable Over Aprille In View Of Rozenkranc Under 35 U.S.C. § 103(a)

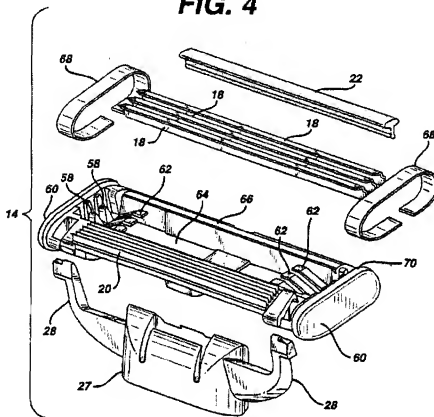
Claims 12-14, 22, 23, and 27 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Aprille in view of Rozenkranc. Claims 12 and 13 depend from independent claim 1, while claims 22, 23, and 27 depend from independent claim 14.

In regard to the rejection of claims 14, 22, 23, and 27, claim 14 requires a “connecting member [that] includes a pair of arms, each arm having an associated terminal portion . . . wherein each terminal portion extends from an end of the corresponding arm, the end forming a load-bearing surface (146, 148), the load-bearing surface (146, 148) arranged and configured to contact the housing only when the housing is pivoted beyond a limit angle that is greater than the normal pivot angle.” Aprille does not disclose or suggest this feature, as discussed in Section A above.

Independent claim 14 also requires that each arm of the connecting member have “an associated terminal portion constructed to be received by a recess in the housing, wherein a normal pivot angle is defined by the opposed stop surfaces defined by the terminal portions and a surface of the housing.” The Aprille shaving device includes terminal portions, member 72, on a pair of arms 28, where the terminal portions, 72, along with a surface of the housing 162 define

the normal pivot angle. However, as shown in Fig. 4 of Apprille, reproduced below, neither arm 28 of the Apprille shaving device includes an “end forming a load-bearing surface (146, 148), the load-bearing surface (146, 148) arranged and configured to contact the housing only when the housing is pivoted beyond a limit angle that is greater than the normal pivot angle.”

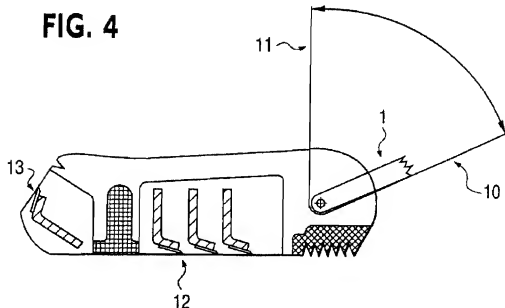
FIG. 4



The Examiner asserts that “the normal pivot angle of Apprille is zero degrees defined by one side of the connecting member and the housing and the limit angle be anything greater than the normal pivot angle, but below the angle necessary [sic] to contact the second side of the connecting member with the housing” (Office Action mailed May 16, 2007, page 6, line 20 – page 7, line 3). Apparently, the Examiner is referring to the terminal portion 72 of the Apprille device when using the term “connecting member.” As discussed above with regard to the rejection of claims 1-6, 24, and 26 over Apprille, the Examiner’s claim construction of the “normal pivot angle” is unreasonable because it ignores the requirement of independent claim 14 that the normal pivot angle be “defined by the opposed stop surfaces defined by the terminal

portions and a surface of the housing." It is clear from the claims and the application as a whole that the "normal pivot angle" is not merely a normal relative positioning of the blade unit to the connecting member, but rather an angle of pivotal movement normally allowed by the opposed stop surfaces of the housing and the connecting member. It is only through the Examiner's unreasonable interpretation of Appellant's claim language that the Examiner is able to allege that the Apprille device "teaches all of the elements of the current invention as stated above except a trimming assembly comprising a trimming blade connected to the cartridge housing."

Rozenkranc also does not disclose a "connecting member [that] includes a pair of arms, each arm having an associated terminal portion . . . wherein each terminal portion extends from an end of the corresponding arm, the end forming a load-bearing surface (146, 148), the load-bearing surface (146, 148) arranged and configured to contact the housing only when the housing is pivoted beyond a limit angle that is greater than the normal pivot angle." Fig. 4 of Rozenkranc, reproduced below, does show a feature (1) that appears to be an arm, but this arm does not include an "end forming a load-bearing surface" that is "arranged and configured to contact the housing only when the housing is pivoted beyond a limit angle that is greater than the normal pivot angle."



Furthermore, the Examiner does not allege that Rozenkranc discloses such a structure. Because neither Apprille nor Rozenkranc disclose or suggest a "connecting member [that]

includes a pair of arms, each arm having an associated terminal portion . . . wherein each terminal portion extends from an end of the corresponding arm, the end forming a load-bearing surface (146, 148), the load-bearing surface (146, 148) arranged and configured to contact the housing only when the housing is pivoted beyond a limit angle that is greater than the normal pivot angle," the rejection of claims 14, 22, 23, and 27 over Apprille in view of Rozenkranc must be withdrawn.

The rejection of claims 12 and 13 is also improper for the same reasons discussed above in regard to the rejection of claims 1-6, 24, and 26 over Apprille under 35 U.S.C. § 102(b). As discussed above, Apprille does not disclose a "connecting member having a load-bearing surface arranged and configured to contact the housing only when the housing is pivoted beyond a limit angle that is greater than the normal pivot angle." Neither Rozenkranc nor Apprille suggest, or otherwise render obvious, a connecting member with such a load-bearing surface. Accordingly, the rejection of claims 12 and 13 under 35 U.S.C. § 103(a) over Apprille in view of Rozenkranc is improper and must be withdrawn.

F. Claims 20 and 21 Are Not Unpatentable Over The Modified Device Of Apprille, As Stated In Section 9, Under 35 U.S.C. § 103(a)

Claims 20 and 21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the modified device of Apprille, as stated in section 9. As noted above, apparently "section 9" is a typographical error and the Examiner had intended to recite "section 7." Claims 20 and 21 depend from independent claim 14. This rejection is also improper for the same reasons as explained in regard to the rejection of claims 14, 22, 23, and 27 over Apprille in view of Rozenkranc under 35 U.S.C. § 103(a). As discussed above, neither Apprille nor Rozenkranc disclose or suggest "a connecting member [that] includes a pair of arms, each arm having an associated terminal portion . . . wherein each terminal portion extends from an end of the corresponding arm, the end forming a load-bearing surface (146, 148), the load-bearing surface (146, 148) arranged and configured to contact the housing only when the housing is pivoted beyond a limit angle that is greater than the normal pivot angle." Accordingly, the rejection of claims 20 and 21 under 35 U.S.C. § 103(a) over the modified device of Apprille is improper and must be withdrawn.

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Respectfully submitted,

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Appendix of Claims

1. A shaving cartridge comprising:

a blade unit comprising a housing having a front edge and a rear edge; and

one or more shaving blades between the front edge and the rear edge; and

a connecting member pivotally connected to the housing, the housing and connecting member defining opposing stop surfaces for limiting rotation of the blade unit relative to the connecting member;

wherein a normal pivot angle is defined by the opposed stop surfaces;

the connecting member having a load-bearing surface arranged and configured to contact the housing only when the housing is pivoted beyond a limit angle that is greater than the normal pivot angle.
2. The shaving cartridge of claim 1, wherein the connecting member includes a pair of arms, each arm having an associated terminal portion constructed to be received by a recess in the housing.
3. The shaving cartridge of claim 2, wherein the normal pivot angle is defined by opposed stop surfaces defined by the terminal portions and a surface of the housing.
4. The shaving cartridge of claim 2, wherein each terminal portion extends from an end of the corresponding arm, the end forming the load-bearing surface.

5. The shaving cartridge of claim 2, wherein the connecting member includes a body, each arm extending from the body at opposite sides of the body.
6. The shaving cartridge of claim 5, wherein the connecting member includes an opening extending through the body and positioned between the arms, the opening configured to receive an handle interconnect assembly for connecting the cartridge and a handle.
7. The shaving cartridge of claim 1, wherein the normal pivot angle has a predetermined value greater than about 35 degrees and less than about 45 degrees.
8. The shaving cartridge of claim 1, wherein the normal pivot angle is about 41 degrees.
9. The shaving cartridge of claim 1, wherein the limit angle is greater than about 41 degrees.
10. The shaving cartridge of claim 1, wherein the limit angle is between about 41.5 and 45 degrees.
11. The shaving cartridge of claim 1, wherein the load-bearing surface is U-shaped.
12. The shaving cartridge of claim 1 further comprising a trimming assembly connected to the housing.

13. The shaving cartridge of claim 12, wherein the trimming assembly includes a trimming blade.

14. A shaving cartridge comprising:

a blade unit comprising,

a cartridge housing;

one or more blades positioned on the cartridge housing defining a first cutting region; and

a trimming blade connected to the housing and defining a second cutting region spaced from and facing in a direction away from the first cutting region; and

a connecting member pivotally connected to the cartridge housing, the cartridge housing and connecting member defining opposing stop surfaces for limiting rotation of the blade unit relative to the connecting member during a trimming operation using the trimming blade,

wherein the connecting member includes a pair of arms, each arm having an associated terminal portion constructed to be received by a recess in the housing,

wherein a normal pivot angle is defined by the opposed stop surfaces defined by the terminal portions and a surface of the housing, and

wherein each terminal portion extends from an end of the corresponding arm, the end forming a load-bearing surface (146, 148), the load-bearing surface (146, 148) arranged and configured to contact the housing only when the housing is pivoted beyond a limit angle that is greater than the normal pivot angle.

18. The shaving cartridge of claim 14, wherein the normal pivot angle has a predetermined value that is greater than about 35 degrees and less than about 45 degrees.
19. The shaving cartridge of claim 14, wherein the normal pivot angle is about 41 degrees.
20. The shaving cartridge of claim 14, wherein the limit angle is greater than about 41 degrees.
21. The shaving cartridge of claim 14, wherein the limit angle is between about 41.5 and 45 degrees.
22. The shaving cartridge of claim 14, wherein the connecting member includes a body, each arm extending from the body at opposite sides of the body.
23. The shaving cartridge of claim 22, wherein the connecting member includes an opening extending through the body and positioned between the arms, the opening configured to receive a handle interconnect assembly for connecting the cartridge and a handle.

24. A shaving razor comprising:

a handle; and

a shaving cartridge including a connecting member for connecting the cartridge to the handle, the shaving cartridge comprising

a blade unit comprising a housing having a front edge and a rear edge; and

one or more shaving blades between the front edge and the rear edge;

the housing and connecting member defining opposing stop surfaces for limiting rotation of the blade unit relative to the connecting member;

wherein a normal pivot angle is defined by the opposed stop surfaces; and

wherein the connecting member is pivotally connected to the cartridge housing, the connecting member having a load-bearing surface arranged and configured to contact the housing only when the housing is pivoted beyond a limit angle that is greater than the normal pivot angle.

26. The shaving razor of claim 24, wherein the shaving cartridge is releasably connected to the handle.

27. The shaving cartridge of claim 14, wherein the blade unit further comprises a guard element formed on the cartridge housing preceding the one or more blades.

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Evidence Appendix

None

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Related Proceedings Appendix

None